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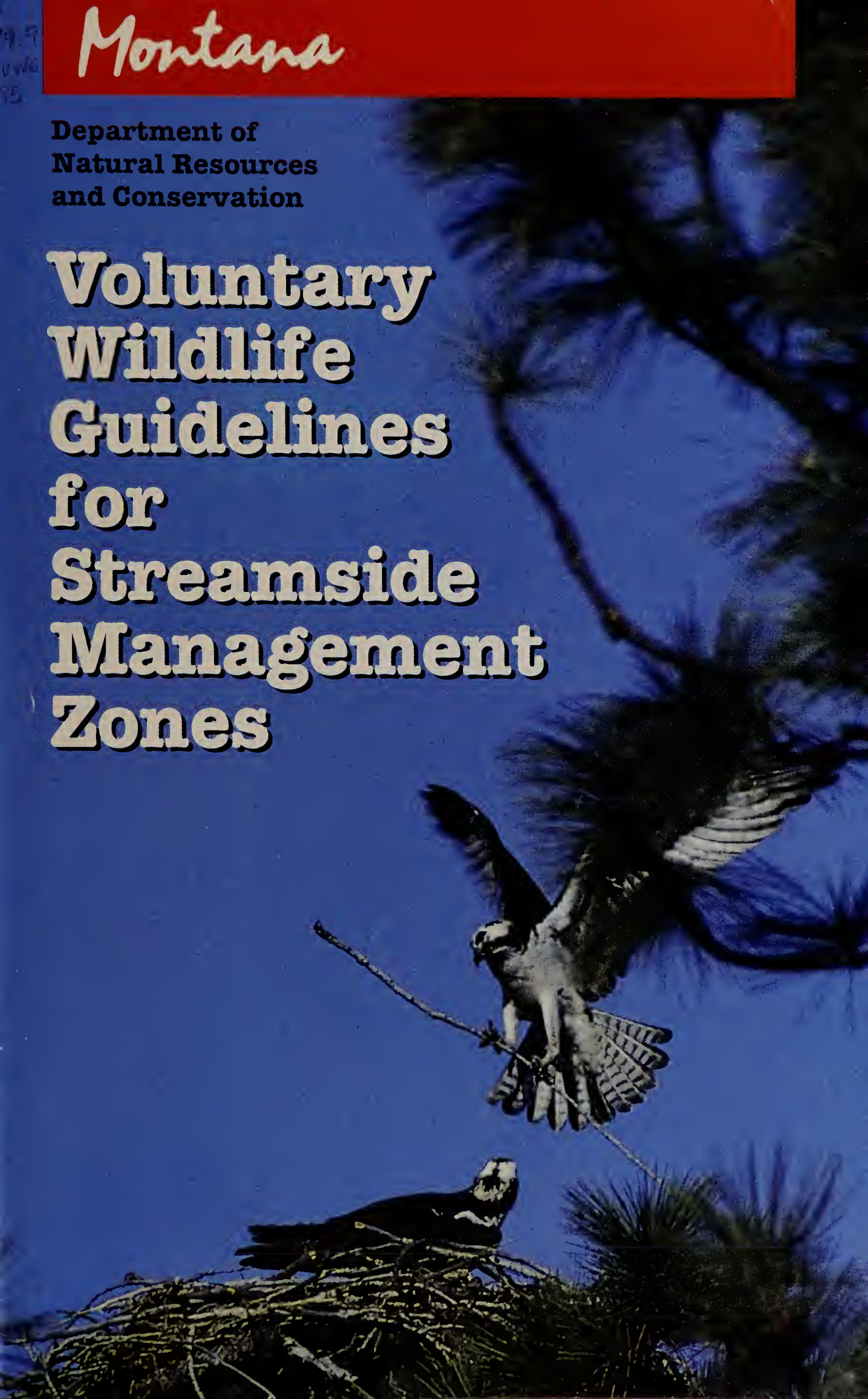
Montana

Department of
Natural Resources
and Conservation

Voluntary Wildlife Guidelines for Streamside Management Zones



Introduction: Voluntary Wildlife Guidelines

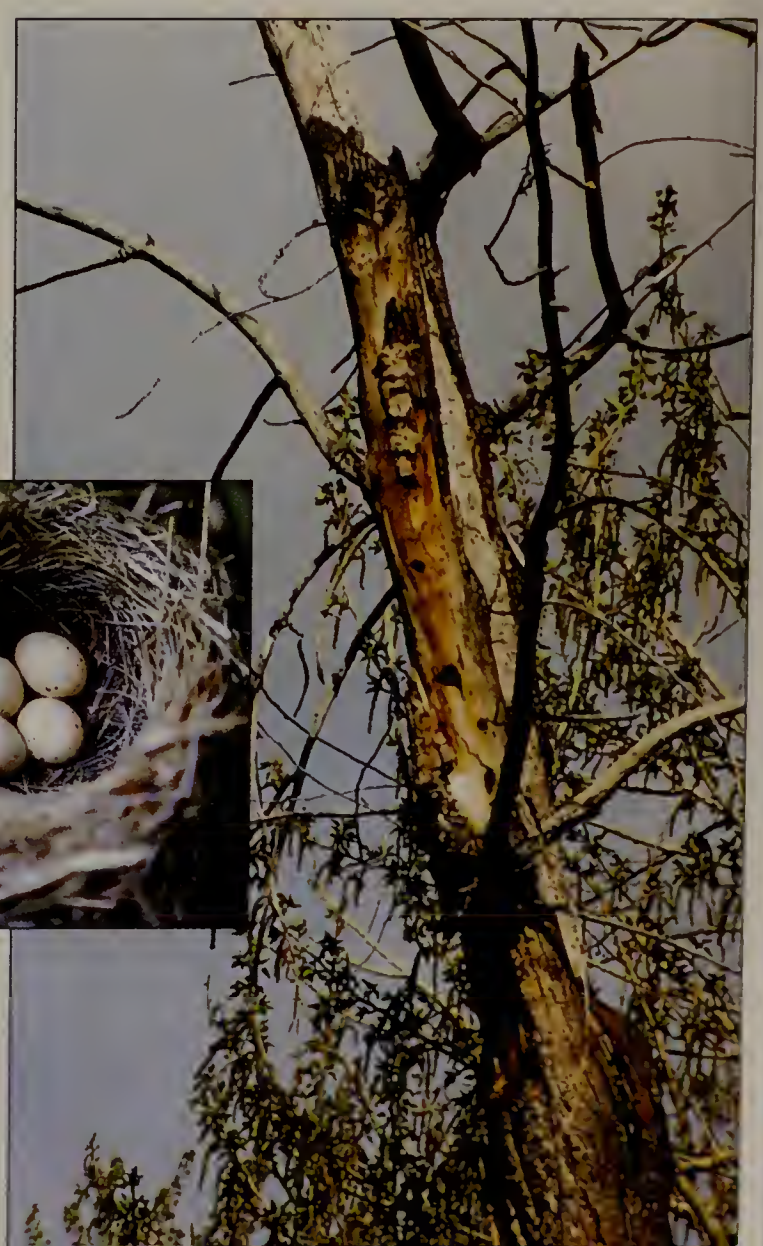
When the 1991 Montana Legislature passed the Streamside Management Zone (SMZ) Law, it also directed the Department of Natural Resources and Conservation to develop voluntary, non-enforceable guidelines for managing wildlife habitat in the SMZ's.

Many wildlife species make extensive use of SMZ's, even though SMZ's comprise only a small portion of the overall landscape. Wildlife depend on SMZ's for food, cover, travel corridors, and nesting areas. Many species also use the SMZ's during migration as resting and feeding areas.

In Montana, at least 47 bird species and 19 mammal species use cavities found in dead or defective trees.

Dead trees are commonly referred to as snags. Many species of wildlife that use snags actively defend them, precluding use by other animals. Large snags, either standing or fallen down into stream channels and onto the forest floor, provide essential habitat for small mammals, reptiles, amphibians and birds.

The SMZ rules already provide for the maintenance of the forest structure and species diversity needed by most wildlife species. However, to enhance these habitat components, these guidelines are provided for voluntary implementation.



Broken-topped trees and snags offer platforms for the large stick-nests of ospreys and some other raptors.

Herons nest in colonies in cottonwood stands.

Open-cup nests of some song-birds and ducks are built in shrubs or on the ground, hidden by leaves and tall grass.

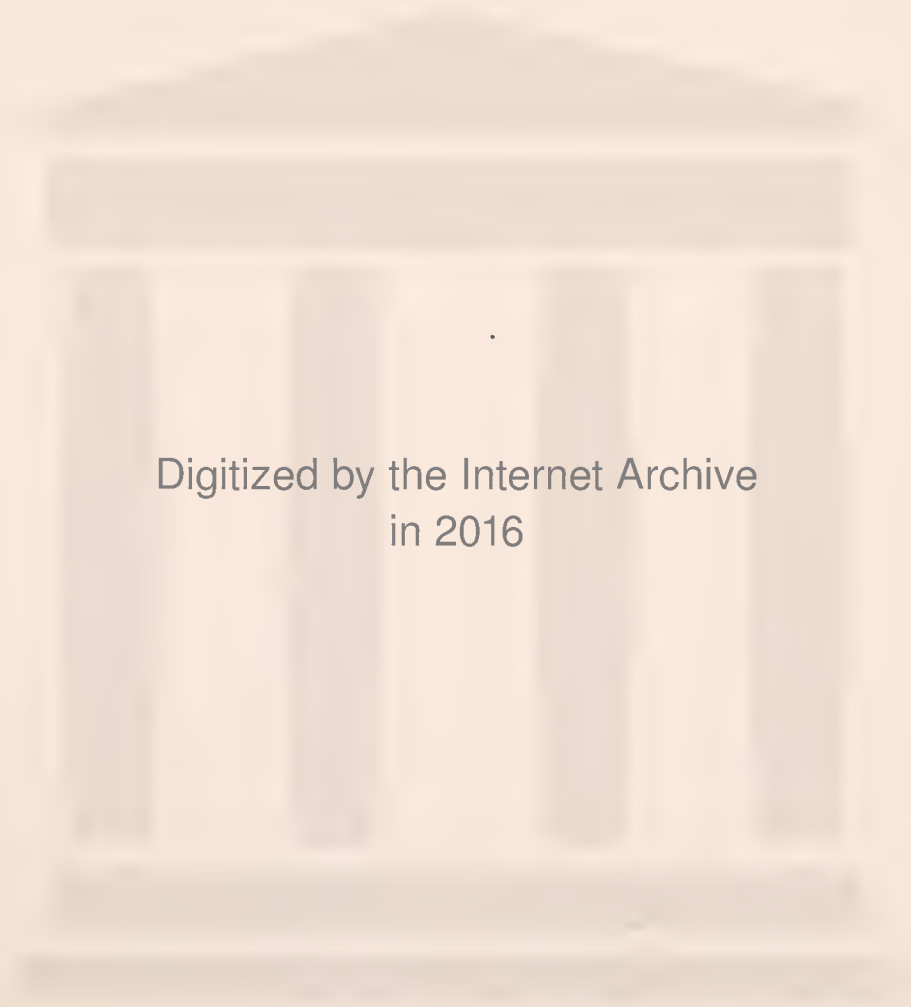
Other song-birds, wood ducks and owls make their homes in cavity nests left by woodpeckers.

Leave-tree Recommendations

Management of SMZ's to maintain a mixed forest stand composed of trees of different species and sizes will help to minimize or reduce adverse impacts to wildlife. In addition, mixed composition of the SMZ leave trees will allow the standing live trees to provide future replacements for snags.

Deformed or defective trees, which are often non-merchantable, make excellent replacement snags. Snags and trees with holes in the trunk, visible nests, signs of rot, spike tops or broken tops are particularly good trees to leave for wildlife. Larger snags, both in diameter and height, are generally more valuable to wildlife than smaller snags. Large snags benefit more species and stand longer than smaller snags. However, each species of wildlife seems to prefer a different snag height and diameter. Therefore it is desirable to leave snags of various sizes distributed in different patterns across the area (i.e., clumped, scattered or evenly spaced). This varied pattern of distribution will help make snags available for the largest number of animals to use. Leaving both hard snags and decayed or soft snags is important. Hard snags are required for nests, whereas soft snags are important feeding sites.

Amphibians, reptiles and fish rely on the pools and cover provided by trees that have fallen into streams. Frogs and turtles rest on fallen trees and warm themselves in the sun.



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Montana

The Importance of Snags to Wildlife

Voluntary Wildlife Guidelines

The following Voluntary Wildlife Guidelines will help maintain wildlife habitat values when conducting timber sales in Streamside Management Zones (SMZ's). These guidelines do not replace, rather they are meant to supplement, the existing SMZ law and rules.

1. To maintain wildlife habitat, minimize disturbance to shrubs and large dead and down logs on the forest floor within the SMZ.

2. To benefit some wildlife species, it may be desirable to leave more large trees and snags in addition to the minimum SMZ retention tree requirements. Consider clumping the additional wildlife leave trees.

3. Trees with visible evidence of wildlife use, such as nests, cavities, woodpecker holes, etc., should be left.

4. If safety permits, leave culls, snags, and hardwoods, especially those with broken tops and visible signs of rot.

If decisions must be made regarding which snags to cut, the following species list ranks "leave" tree snags from more desirable to less desirable:

Ponderosa Pine
Western Larch
Cottonwood
Aspen
Grand Fir
Douglas-fir
Western Red Cedar
All other species

5. To minimize disturbance of occupied songbird nests, directionally fall trees away from deciduous trees and snags, and minimize disturbance of tall shrubs when skidding logs. Consult with a qualified wildlife biologist if you desire species or site-specific advice.

6. Leave all trees containing nests of bald eagles or any other raptor, owl, cormorant, or heron standing and unharmed. Leave trees that are used as a perch near nests or feeding areas. Leave "screening" trees that protect nest trees from impacts of human activities and natural elements.

Plan to do timber harvest and road construction near active nests outside the nesting season. Begin timber operations as far as possible from active nest trees. Consult with a qualified wildlife biologist for species and site-specific advice prior to harvesting.

Nesting Dates of Interest

Nesting dates of most Montana raptors are April 15 to August 15. Some noted exceptions are listed below:

American kestrel	May 1-Aug 15
Bald eagle	Feb 1-Aug 15
Ferruginous hawk	Apr 1-July 30
Golden eagle	Feb 1-July 30
Great-gray owl	Mar 1 Aug 15
Great-horned owl	Mar 1-Aug 15
Long-eared owl	Mar 1 Aug 1
Northern harrier	Apr 1-July 15
Northern pygmy owl	Mar 1-July 15
Northern saw-whet owl	Mar 1 Aug 30
Prairie falcon	Mar 15-July 30
Short-eared owl	Mar 1-Aug 1
Swainson's hawk	May 1-Sept 15

Nesting dates for herons, cormorants and songbirds are listed below:

Cormorant rookeries	Mar 15-July 15
Heron rookeries	Mar 15-July 15
Songbirds	May 15-July 1

Raptors (hawks, eagles and owls) use snags as perch sites for resting and spotting prey. Snags also serve as singing posts for many songbirds.

Primary cavity nesters, such as woodpeckers, dig into the wood, creating new nesting holes each year.

Secondary cavity nesters, including bluebirds, flycatchers, small owls and squirrels, occupy and modify abandoned woodpecker nesting holes to suit their needs.

Cracks in the bark provide access for microbes and insects that consume and tunnel through the wood.

Woodpeckers pound into the bark to feed on insects, especially carpenter ants. Evidence of their efforts ranges from a series of small feeding holes to larger, trough-like excavations.

As the bark continues to split and separate from the trunk, bats roost and small birds build nests under the overhanging loose bark.

Large snags are especially important to wildlife because they stand longer and provide more area for cavity nests and feeding. These snags are not easily replaced.

Live trees with broken tops are also very valuable as nesting sites.

Bears tear into the soft wood of old snags to feed on carpenter ant colonies.

Deer and raccoons find shelter and food in SMZ's.

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Where to Get Additional Information

Wildlife habitat requirements vary from species to species. Habitat changes that benefit one species may affect other species. If you want to know more about what you can do to allow for wildlife needs, please seek professional assistance in planning your management activities.

For additional information, contact the Montana Department of Fish, Wildlife and Parks regional office in your area or the Montana Department of Natural Resources and Conservation wildlife biologist at (406) 542-4300.

Cover: Ospreys construct their nest atop a snag.

Left: Cottonwood snag with evidence of extensive wildlife feeding and nesting.

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